

Amendments to the Claims:

Please amend claims 1 and 16 as follows. Please cancel claims 19 and 20.

This listing of claims replaces all prior versions, and listings, of claims in the application.

Listing of claims:

1. (Currently Amended) A method of manufacturing a capacitor of a semiconductor device, the method comprising:

forming a first electrode on a semiconductor substrate;

depositing a first dielectric layer on the first electrode;

curing the first dielectric layer in an atmosphere containing oxygen;

depositing a second dielectric layer on the cured first dielectric layer using only a source gas without a reactant gas; and

forming a second electrode on the second dielectric layer without curing the second dielectric layer before forming the second electrode and without curing the second dielectric layer after forming the second electrode.

2. (Original) The method as claimed in claim 1, wherein the first dielectric layer is deposited using only a source gas without a reactant gas.

3. (Original) The method as claimed in claim 1, wherein the first dielectric layer and the second dielectric layer are deposited using chemical vapor deposition.

4. (Original) The method as claimed in claim 1, wherein the first dielectric layer and the second dielectric layer are deposited using atomic layer deposition.

5. (Original) The method as claimed in claim 1, wherein the source gas includes

oxygen atoms.

6. (Original) The method as claimed in claim 1, wherein the first dielectric layer and the second dielectric layer are deposited at a temperature of 100 to 600 °C.

7. (Original) The method as claimed in claim 1, wherein the first dielectric layer is deposited to a thickness of 5 to 200 Å, and the second dielectric layer is deposited to a thickness of 5 to 3000 Å.

8. (Original) The method as claimed in claim 1, wherein the source gas is one of Ta(OC₂H₅)₅, tetra ethoxide tantalum-dimethyl amine ethoxide, Ta(OsBu)₅, Ta(OC₂H₅)₄(acacC₂H₅), TaCl₂(OC₂H₅)₂C₅H₇O₂, and Ta(OCH₃)₅.

9. (Original) The method as claimed in claim 1, wherein the first dielectric layer is formed of Ta₂O₅ using chemical vapor deposition.

10. (Original) The method as claimed in claim 1, wherein the second dielectric layer is formed of Ta₂O₅ using chemical vapor deposition.

11. (Original) The method as claimed in claim 1, wherein steps from depositing the first dielectric layer to depositing the second dielectric layer are performed in-situ in a single apparatus for forming dielectric layers.

12. (Original) The method as claimed in claim 1, wherein the atmosphere containing oxygen is an oxidative atmosphere containing O₂ or O₃.

13. (Original) The method as claimed in claim 1, wherein the atmosphere containing oxygen is electron cyclotron resonance or an RF plasma of one of O₂ and N₂O.

14. (Original) The method as claimed in claim 1, wherein the first electrode and the

second electrode are formed of one of TiN, TaN, W, WN, Al, Cu, Ru, RuO₂, Pt, Ir, IrO₂, a doped polysilicon, and a combination thereof.

15. (Original) The method as claimed in claim 1, wherein the first dielectric layer and the second dielectric layer are formed of one of Ta₂O₅, HfO₂, ZrO₂, Al₂O₃, TiO₂, and a combination thereof.

16. (Currently Amended) A method of manufacturing a capacitor of a semiconductor device, the method comprising:

forming a first electrode on a semiconductor substrate;

depositing a first Ta₂O₅ layer on the first electrode;

curing the first Ta₂O₅ layer in an O₃ atmosphere;

depositing a second Ta₂O₅ layer on the cured first Ta₂O₅ layer using only Ta(OC₂H₅)₅ without a reactant gas; and

forming a second electrode on the second Ta₂O₅ layer without curing the second Ta₂O₅ layer before forming the second electrode and without curing the second Ta₂O₅ layer after forming the second electrode.

17. (Original) The method as claimed in claim 16, wherein the first Ta₂O₅ layer is deposited using only Ta(OC₂H₅)₅ without a reactant gas.

18. (Original) The method as claimed in claim 16, wherein the first Ta₂O₅ layer and the second Ta₂O₅ layer are deposited using chemical vapor deposition.

19. (Cancelled)

20. (Cancelled)